

The Semantic Interrelations between Names of Upper Limbs Parts in English

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Abstract

This search finds the names of upper limbs parts from Cambridge dictionary and Macmillan dictionary that are revealed a comprehensive lists related to upper limbs in English varieties 24 lexemes from thesaurus options. These lexemes can classify to the types of the lexical subsystem: synonymic, holonymic, meronymic, hyperonymic, hyponymic, but it has not antonymic rows and troponomic. At last the research can be found 5 pairs of synonymic, 13 holonymic & meronymic, 6 hyperonymic & hyponymic.

The human body consists of different parts that all together give the overall shape of this body. The names of those parts are known in linguistics of recent years as body-part terms (see [1; 21] et al.). The present study is limited to the terms naming the parts of upper limbs. As E. Vainik's investigation of Estonian language data revealed, the "conceptualizations clearly have to do with the parts of the body rather than with the body as a whole" [21, p. 48]. Therefore one can anticipate that in every language, and English varieties do not comprise an exception from the rule, the names of the upper limbs parts do possess multiple meanings including not only metaphoric ones but also collocational meanings, which arise "from the semantic frames of the collocating terms" [9, p.32].

In order to reveal the semantic interrelations between the terms one should compile a comprehensive list of the names of upper limbs parts first. For this purpose the possibilities of on-line Macmillan Dictionary [12] and Cambridge Dictionary [3] were used.

It is well-known that besides Macmillan Dictionary and Cambridge Dictionary there are other well-known comprehensive explanatory English dictionaries accessible on-line, such as Collins Dictionary [4], Longman Dictionary [10], and Oxford Dictionary [16].

Macmillan and Cambridge dictionaries have been chosen for the reason that those resources possess a specific option of search by semantic categories in the thesaurus. By using this type of search

(<https://dictionary.cambridge.org/topics/animal-anatomy/the-arm/>;
<https://dictionary.cambridge.org/topics/animal-anatomy/the-hand/>) 115 lexemes were found in Cambridge dictionary, and 59 lexemes were retrieved from Macmillan dictionary by using the following query:

<https://www.macmillandictionary.com/thesaurus-category/british/limbs-and-appendages>. All the lexemes found in both dictionaries are given in the dictionary specific lists in the Table 1.

Table 1. Lexemes got through the search by a semantic category

Dictionaries	Found lexemes
Cambridge Dictionary	acromial, acromioclavicular, acromion, alar, ambidextrous, anconeus , antebrachial , appendage , appendicular, arm , armed, armpit , back, ball , biceps, brachial, brachialis, brachii , brachiocephalic, brachioradialis, brachium, carpal, carpometacarpal, carpus, crook ,cubital, cuticle , digit , digitorum, elbow , finger , fingered, fingermark, finger nail , fingerprint, fingertip , fist , flat, forearm , forefinger , funny bone, glenohumeral, glenoid, hand , heel , index finger , indicis, infraglenoid, infraspinaous, infraspinaous, knuckle , left-handed, left-hander, lefty, limb , little finger , manual, manually, manus, metacarpus, metacarpal, metatarsophalangeal, middle finger , minimus, mitt , nail , oxter, palm , palmar, paw , phalangeal, phalanx, pinkie , pollicis, print, quick, radial, radialis, radiocarpal, radioulnar, radius, right-handed, right-hander, ring finger , scaphoid, scapular, snuffbox , subscapular, subscapularis, supraclavicular, supraglenoid, suprascapular, supraspinatous, supraspinatus, supraspinous, teres, thenar, , tibial, tibialis, tibiofibular, tibiotalar, triceps, trapezium, trapezoid, thumb , thumb nail , triquetrum, two-handed, ulna, ulnar, ulnaris, underarm , volar, volaris, wrist .
Macmillan Dictionary	Ankle, appendage , arch, arm , armpit , ball , big toe, calf, club foot, crotch, crutch, digit , elbow , extremity, finger , finger nail , fingertip , fist , foot, forearm , forefinger , groin, hand , haunch, heel , index finger , instep, knee, knuckle , leg, limb , little finger , middle finger , mitt , nail , pad, palm , paw , peg, leg, pinkie , pinky, pins, pit, quick, ring finger , shank, shin, shoulder, sole, thigh, thumb , thumb nail , toe, toenail, tootsies, underarm , wrist .

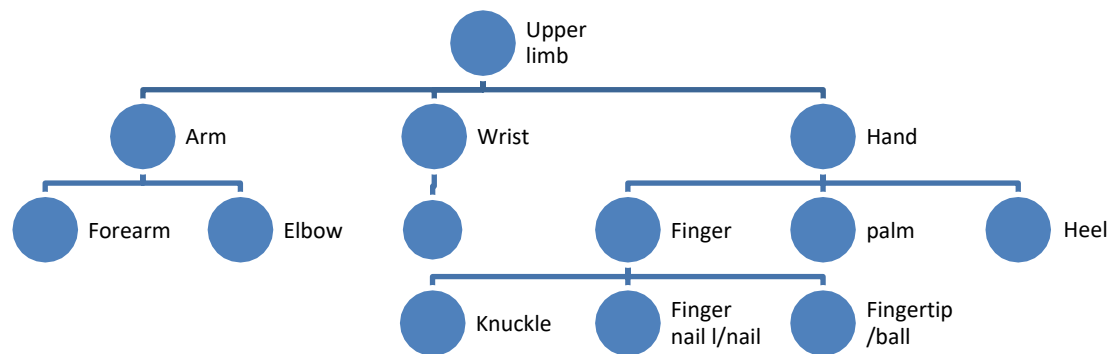
The lexemes given in bold letters in the table 1 are the same in the both lists. The lists are not the same for two reasons: the first one is connected to the differences in search systems and the second one is connected to the potential differences in possibilities of lexemes, which the dictionaries include.

As one may see not all the lexemes found in the both dictionaries are the names of upper limbs parts: Those lexemes will be not considered further. They are: **appendage** (has a meaning " formal something that is joined to something larger or more important, for example a small part of your body such as a hand or foot." [12]); **armpit** (the part of your body under your arm, where the arm joins the shoulder [12]); **fist** (means "your hand when your finger are closed tightly" [12]); **limb** (an arm, or a leg [12]); and **underarm** (means "the area of your body under

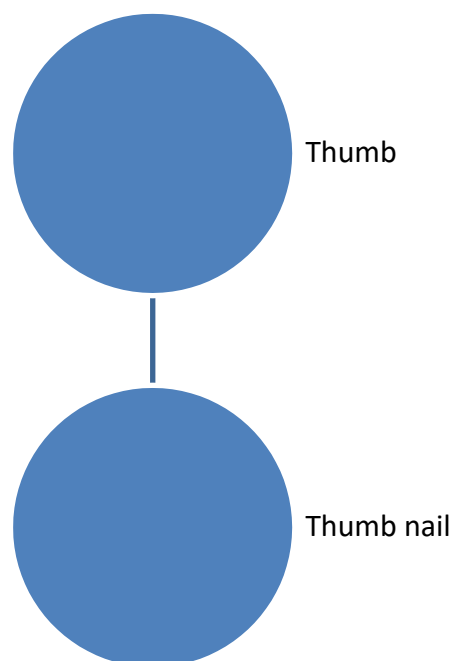
your arm" [12]). It is obvious that the lexemes extracted from the dictionaries comprise a kind of lexical subsystem associated extra linguistically with the same object of which they nominate. Therefore the list of the items selected by us from the abovementioned dictionaries represents the lexical semantic subsystem or paradigm "upper limbs",

L. Murphy [14,15], as well as some other researchers, J. I. Saeed [18], P. C. Freeman [8], P. Storjohann [19], define different kinds of semantic relations by which the words can be connected:

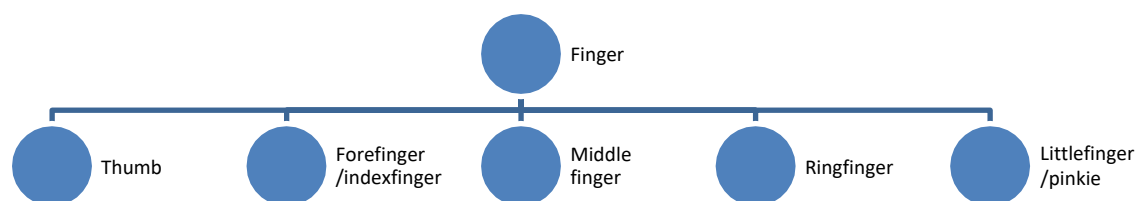
synonymic; antonymic; holonymic; meronymic; hyperonymic; hyponymic; troponymic [14, p.26]. The lexis under consideration period examples of synonymic, holonymic- meronymic, and hyperonymic-hyponymic paradigms.



Picture1: Holonymy- meronymy relations (upper limb)



Picture 2: Holonymy- meronymy (thumb)



Picture3: Hyperonymy- hyponymy

Synonymy is usually considered to exist between several words that have partially or completely the same meaning. D. Crus, reveals several types of synonymy that is: absolute synonymy, propositional synonymy, near- synonymy, [5, p.285]. He considers synonymy Absolute “when there exist the possibility of substituting one word for another in any conceivable context without the least change of meaning (including style, register, attitude, etc.)” [5, p. 268]. Propositional synonymy arises when “substitution of terms entails the same truth conditions” [5, p.268]. Such synonyms can differ “in style or associative meaning” [5, p.269].

According to D. Crus, the (near-synonymy) arises when lexemes are very close but not the same in these meanings [5, p.269].

Forefinger----- index finger

Nail-----fingernail Hand-----

paw-----mitt Finger----digit

Little finger---pinkie

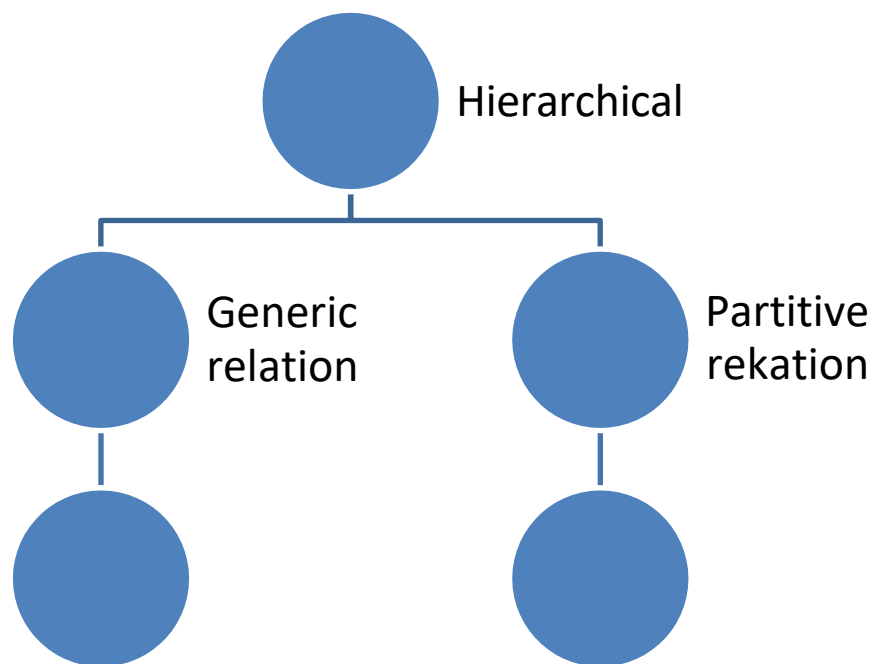
The second pairs [*fore finger-index finger; nail-fingernail*] can be considered the absolute synonymy. *Fore finger* has meaning (“the finger that is next to your thumb. Next to your forefinger is your middle finger, then your ring finger, and the smallest is your little finger” [12]) and *index finger* has meaning (“the finger next to your thumb” [12]); *Nail* “The hard, smooth part at the upper end of each finger and toe”. And *Fingernail* refers to “The hard, smooth covering that protects the upper part of the end of a finger”. They refer to near- synonymy”.

The third pairs [*hand -mitt-paw; digit -finger; little finger-pinkie*] refer to near- synonymy. *Hand-* means “The part of your body at the end of each arm that you use for picking up and holding things”; *mitt-* means “A thick mitten that you wear on your hands to protect them”; *paw-* refers “INFORMAL a person’s hand”. The *finger-* has meaning –“any of the long, thin parts of the hand that bend and hold things, esp. one other than the thumb”. –*Digit-* refers “One of your fingers or toes”. *Little finger-* “The smallest finger on each hand”; and the *pinkie-* means the smallest finger on your hand. [12].

According to P. Storjohann, antonymy plays an important role in organizing and contrasting the vocabularies of languages [19, p.15]. L. Palmer, discovers three types of antonymic: implicitly gradable pairs (graded antonym), complimentary pairs (complementarity), relational pairs (conversances) [17, p.95]. L. Palmer, defines the implicitly gradable pairs (graded antonym) refers to “the words related to the object they modify”. The complimentary pairs (complementarity), refers by L. Palmer, to “the existence of pairs that the denial of one implies the assertion of the other”. At last

L. Palmer, defines the relational pairs (conversances) “refer to the pairs of words that are the reversal of a relationship of words” [17, p. 100]. There are not any antonymic rows in theses 24 items. Also P. C. Freeman, explains that a pair of lexemes is antonymic when users of the language are immediately aware of this relationship even if the two words are presented in isolation, compare: and frames of this kind. The frame itself does not create the semantic opposition. But merely point it up. As a result of research the synonymic and antonymic can be found these two pairs show the opposite of each one in meaning between them [8, p.21].

The picture 4 shows types of hierarchal relations in this search; generic relations and general concepts, and the partitive concepts. The generic relations defines the occupy the bottom runge of the ladder [hyponymic & hyponymic]. The partitive relations refers to parts to whole and the parts come together to form the whole [holonymic & meronymic].



Picture 4: Hierarchical

L. Murphy, refers to Holonymy is the relation from the whole to part [14, p. 9]. As well as he defines meronymic paradigms is the part-to whole relation [15, p.26]. And J. I. Saeed, refers to meronymy “is a term used to describe a part-to whole relationship between lexical relationships, [18, p.10]. There are 13 items of holonymic-meronymic in picture (1). The holonymic- meronymic; of upper limbs are [arm, wrist, hand]; and the holonymic- meronymic of arm is [fore arm, elbow]; the holonymic- meronymic of hand is [*finger*, *palm*, *heel*]; and the finger is knuckle, (nail- finger nail, fingertip- ball). *Arm-* means “One of the two long parts of your body with your hands at the end.”; *wrist-* means “The part of your body between your hand and your arm.” And *hand* -means “The part of your body at the end of each arm that you use for picking up and holding things”; and forearm- means “ The lower part of the arm, between the hand and the elbow.”; *elbow* -means “The part in the middle of your arm, where it bends.”; *finger-* means “any of the long, thin parts of the hand that bend and hold things, esp. one other than the thumb”; *palm-* has meaning “The inside part of your hand, between your fingers and your wrist.”; *heel-* “The part of the front of your hand nearest your wrist.”; *knuckle* (“One of the parts where your fingers can bend or where they join your hand”); *fingernail* (“Any of the hard smooth parts that cover the ends of your fingers.”); *nail* is (“the smooth hard part that grows over the ends of your fingers and toes”); *fingertip* (“The end of your finger at your fingertips.”), *ball* (“a round or nearly round object or shape”)

The picture 2 refers to holonymic-meronymic [*thumb-thumbnail*]; *thumb* (“The part at the side of the hand that is like a wide finger.”), *thumb nail* is (“the nail of your thumb”).

Hyperonymy: is a word whose meaning includes the meaning of a more specific word; Cambridge dictionary defines the hypernym is “a word whose meaning includes a group of other words” [3]. L. Murphy, refers to Hyponymy is the class inclusion and J. I. Saeed, refers to hyponymy is the relation of inclusion words related to the group of words in meaning. Picture 3 describes the hyperonymy- hyponymic which the relation is between finger [thumb, forefinger, middle finger, ring finger, little finger]. *thumb* (“The part at the side of the hand that is like a wide finger.”), *forefinger* (“the finger that is next to your thumb. Next to your forefinger is your middle finger, then your ring finger, and the smallest is your little finger.”), *middle finger* (“the longest finger on your hand, which is in the middle next to your forefinger”), *ring finger* (“the finger next to your smallest finger, on which a wedding ring is traditionally worn. In the UK, your ring finger is on your left hand.”), *little finger* is (“the smallest finger on your hand”)

Free dictionary defines troponymy – “the semantic relation of being a manner of does something” [6]; for example *hand* is a troponymy of help, as well as the *arm* is atroponymic of help or carry the weapon and the *ring finger* is atroponymic of wedding, but the *mitt* for playing golf ;the other lexical

subsystem refer to the help. The article concludes that are lexemes from both dictionaries include 24 items which classify into synonymic, holonymic, meronymic, hyperonymic, hyponymic, and troponymic. There are revealed 5 synonymic rows, every row is revealed to a pair of synonymic lexemes. From those second pairs only one pair related to absolute synonyms and the other pair is near-synonymy. There are 13 holonymic and meronymic for these items. These lexemes contain 2 hyperonymic and 6 hyponymic for all these items. At last there are not troponymic. This search revealed the lexical paradigms from the two comprehensive lists related to upper limbs parts.

REFERENCES

1. Arista, J. M. Recursivity, Derivational Depth and the Search for Old English Lexical Primes / J. M. Arista // *Studia Neophilologica*. – 2013. – No. 85 (1). – P. 1–21. doi:10.1080/00393274.2013.771829
2. Cablitz, G. H. Marquesan: a Grammar of Space / G.H. Cablitz. – Berlin; New York: Mouton de Gruyter, 2006. – 682 p.
3. Cambridge dictionary [electronic resource]. – Mode of access: <https://dictionary.cambridge.org/topics/animal-anatomy/the-hand>. – Date of access: 25.02.2018.
4. Collins dictionary [Electronic resource]. – Mode of access: <https://www.collinsdictionary.com/>. – Date of access: 25.02.2018.
5. Crus, D. A. Lexical semantics/ D. A. Crus. – Cambridge: Cambridge university press, 1986. – 434 p.
6. Embodiment via Body Parts: Studies from various languages and cultures / ed.: Z. A. Maaly, N. Yu. – Amsterdam; Philadelphia: John Benjamins Publishing Company, 1984. – 258 p.
7. Free dictionary [Electronic resource]. – Mode of access: <https://www.thefreedictionary.com/troponymy>. – Date of access: 25.02.2018.
8. Freeman, P. C. Challenging the boundaries/ P. C. Freeman. – Amsterdam; New York: John Benjamin's Publishing Company, 2007. – 380 p.
9. Lalor, E. The representation of “false cognates” in the bilingual lexicon / E. Lalor, K. Kirsner // *Psychonomic Bulletin & Review*. – 2001. – No. 8(3). – P. 552–559.
10. Longman dictionary [electronic resource]. – Mode of access: www.longmandictionaries.com. – Date of access: 25.02.2018.
11. Lyons, J. Introduction to theoretical linguistics/ J. Lyons. – Cambridge: Cambridge university press, 1968. – 550 p.
12. Macmillan Dictionary [Electronic resource]. – Mode of access: <https://www.macmillandictionary.com/thesaurus-category/british/limbs-and-appendages>. – Date of access: 14.02.2018.
13. Marmaridou, S. The relevance of embodiment to lexical and collocational meaning: the case of *prosopo* ‘face’ in Modern Greek / S. Marmaridou // *Embodiment via Body Parts: Studies from various languages and cultures* / ed.:

Z. A. Maaly, N. Yu. – Amsterdam; Philadelphia: John Benjamins Publishing Company, 1984. – P. 23–40.

14 Murphy, M. L. Semantic Relations and the lexicon: Antonymy, Synonymy, and other paradigms/ M. L. Murphy. Cambridge: Cambridge university press, 2003. – 274 p.

15. Murphy, M. L. Lexical meaning/ M. L. Murphy. – Cambridge: Cambridge University Press, 2010. – 250 p.

16. Oxford dictionary [Electronic resource]. – Mode of access: <https://www.oxforddictionaries.com>. – Date of access: 25.02.2018.

17. Palmer, L. Antonymy in semantics/ L. Palmer. . – Cambridge: Cambridge University Press, 1982. – 350 p.

18. Saeed, J. I. Semantics [Electronic resource]. – Mode of access: https://books.google.by/books?id=Wq_uJzzhJYwC&pg=PT88&dq=semantic+relations&hl=ru&sa=X&ved=0ahUKEwjJrOrjiOzbAhUNGewKHd7oATc4FBDoAQhnMAk#v=onepage&q=semantic%20relations&f=false. . – Date of access: 24.6.2018.

19. Storjohann, P. Lexical semantic relations: theoretical and practical perspectives/ P. Storjohann . – Amsterdam; Philadelphia: John Benjamins Publishing Company, 2010. – 325 p.

20. The Body in Language: Comparative Studies of Linguistic Embodiment / ed.: M. Brenzinger, I. Kraska- Szlenk. – Leiden; Boston: BRILL, 2014. – 321 p.

21. Vainik, E. Dynamic body parts in Estonian figurative descriptions of emotion / E. Vainik // Embodiment via Body Parts: Studies from various languages and cultures / ed.: Z. A. Maaly, N. Yu. – Amsterdam; Philadelphia: John Benjamins Publishing Company, 1984. – P. 41–70.